



National Aeronautics and Space Administration
Goddard Space Flight Center

Wallops Flight Facility, Wallops Island, Virginia

Inside Wallops

Volume XIX-98

Number 25

July 13, 1998

Improved NASA Space Suit Technology Gives Virginia Boy His First Day In The Sun

Like an astronaut setting foot on a new world, a six-year-old Virginia Beach, boy can explore Earth during daylight for the first time, thanks to new NASA space suit technology.

Mikie Walker is the first American child to receive a modified "space suit" that protects him from the sun's ultraviolet rays and other light sources.

Mikie has porphyria, a genetic disorder that causes extreme and potentially dangerous sunlight sensitivity that can result in chronic skin inflammation, blistering, inflammation of nerves, abdominal pain and other disturbances. For some children with light sensitivity disorders, even a 40-watt light bulb can be dangerous.

"Mikie's new favorite outdoor activities include playing in dirt and rolling on the lawn," his mother Angela Walker said. "He enjoys this so much that, at the end of the day, he resembles a soil-encrusted Apollo moonwalker."

NASA's Johnson Space Center, Office of Technology Transfer and Commercialization offered the suit to Mikie through an agreement with the not-for-profit HED (hypohidrotic ectodermal dysplasia) and Related Disorders Foundation, Hampton, VA. HED is a medical disorder characterized by a lack of sweat glands, which can lead to heat exhaustion, heat stroke and even

death. Thirty children are on the foundation's waiting list for a suit like Mikie's.

The pint-sized space suit blocks nearly all of the sun's ultraviolet rays. Mikie sports an improved version of a prototype protective suit provided last September to four-year-old Kyle and two-year-old Ryan Richards of Shotton Colliery, England. The brothers have Polymorphic Light Reaction Syndrome, a serious allergy to light that causes severe skin lesions.

Thanks to the "expert" feedback provided by the Richards brothers, NASA developed an upgraded version of the protective garment. The suit's headpiece was redesigned totally to enhance ventilation and reduce overheating in the head area.

The body cooling system was changed from a battery-powered liquid pumps unit to a passive phase change vest, made of material similar to refrigerator cold packs used for sports injuries. The new vest is easier to use and brought down the cost of the entire UV suit.

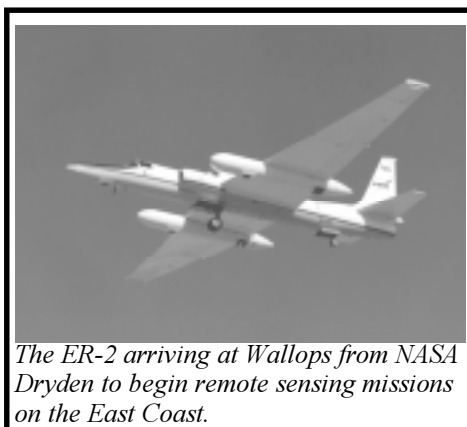
For more information about UV protective suits for children with applicable disorders, contact the HED Foundation at P.O. Box 9421, Hampton, VA, 23670, phone 757/826-0065, or check out the web site at: <http://www.microclimate.com/hed/>

ER-2 Arrives for Remote Sensing Missions

The NASA ER-2 aircraft from Dryden Flight Research Center arrived at Wallops on June 26 for a series of missions involving a remote sensing system.

The ER-2 is using the Airborne Visible Infrared Imaging Spectrometer, a Jet Propulsion Laboratory instrument. The spectrometer sweeps back and forth, collecting information in 224 different "channels". Each channel is sensitive to distinct wavelengths of light. Based on how light is absorbed and scattered, scientists can identify, measure and monitor the Earth's surface and atmosphere.

Research with the spectrometer is directed towards understanding processes related to the global environment and climate change, including ecology, oceanography, geology, snow hydrology and cloud and atmospheric studies.



The ER-2 arriving at Wallops from NASA Dryden to begin remote sensing missions on the East Coast.

The instrument flies on the ER-2 at approximately 12.5 miles above sea level at about 450 mph. Experimenters already have acquired data using this system over sites in the U.S., Canada, Iceland, Switzerland, Austria, Germany, England, France and Italy.

The ER-2 is scheduled to return to Dryden in mid-July.

Wallops Shorts.....

Balloon Launch

A 29.47 million cubic foot NASA scientific balloon was successfully launched June 29 from Fairbanks, AK. The reflight of a June 18 attempt is an engineering test of Ultra Long Duration Balloon equipment. The experiment is a liquid nitrogen cooler germanium x-ray spectrometer and a x-ray camera to observe mev terrestrial x-ray bursts. Dr. Robert Lin, University of California, Berkeley is the principal investigator.

Fire Department

Wallops Emergency Medical Technicians (EMT) responded to mutual aid calls from Accomack County 911 on July 5 and 6. On July 5, EMT assisted the Oak Hall Rescue Company with a medical emergency. On July 6, EMT provided medical assistance and transported the victim of a motorcycle accident to Peninsula Regional Medical Center.

Occu-Health, Incorporated Selected To Provide Occupational Health and Environmental Services

Occu-Health, Inc. (OHI) of Ellicott City, Md. has been selected by NASA to provide comprehensive occupational health, industrial hygiene and radiation protection program services for civil service personnel assigned to NASA Headquarters, Goddard Space Flight Center and Wallops Flight Facility.

OHI also will provide environmental management support at Greenbelt and Wallops. The contractor will administer a physical fitness program at Greenbelt, Wallops and NASA Headquarters.

Similar services will be provided by OHI for NASA employees at the Goddard Institute for Space Studies in New York City.

Services to be provided by OHI, include the diagnosis and initial treatment of personnel who sustain on-site injuries or become ill during duty hours, immunizations, health exams, rehabilitation consultations, medical surveillance, clinical laboratory, health education and counseling, employee assistance, and mobile emergency response.

The period of performance for the cost plus award fee contract is five years; a two year basic period and one, three-year option. Total estimated value of the contract is \$17 million.

Weather Summary

by Jim Buchanan, Meteorologist

Temperatures during June were as close to normal as we have seen in a long time. The daily high averaged 80° which is normal for this time of year. Nighttime lows averaged 64.4° which is 2° above normal. There were only two days when high readings were 90° or higher. The high for the month of 92° was recorded on June 26. There were 11 days with readings below 80° and 2 days when the high only reached into the 60s. The lowest reading for the month was 62° degrees on June 10. Temperatures dropped into the 70s on eight nights. The nighttime low recorded on June 23 and 30 was only 73°.

Heavy showers and thunderstorms rolled across the area the last weekend of June, dropping 1.07 inches of rain on June 26. This also was the most rainfall recorded in a 24-hour period. There were 15 days with measurable rainfall yielding 4.12 inches, nearly one inch above normal. Thunderstorms were reported on seven days.

Usually August is only slightly cooler than July, with the range of daily highs from 82 to 86°. All of the recorded highs for August are above 90°. A reading of 101° set on Aug. 10, 1977 is the highest recorded for August. With two exceptions, 48° on Aug. 29, 1986 and 47° on Aug. 30, 1982, recorded low temperatures for August are in the 50s. Normally an average of 3.79 inches of rain falls during the month. Tropical storm activity usually becomes more active which could easily change the rainfall total for the month.

The Atlantic tropical storm/hurricane season has been quiet so far. Don't let that cause a lapse in preparedness for such a storm. Keep emergency rations and supplies on hand and be familiar with escape route procedures.



This is a friendly reminder:

E-mail chain letters are considered a misuse of government property, no matter how good the cause may seem. Incidents of e-mail chain letters are reported to the Information Technology Security Manager (ITSM) at Goddard, who walks the complaint across the street to the Inspector General's office. Do not take the chance. If you receive an e-mail chain letter, do not forward it, no matter the circumstances.

If you have questions, contact Warren Williams, Information Technology Security Officer, x1639 or by e-mail: Warren.A.Williams.1@gsfc.nasa.gov

FERS Transfer Briefing

(One three-hour session)

July 30, 1 to 4 p.m.

Building E-2

During FERS Open Season, all government agencies are required to offer information sessions for those employees who are considering switching retirement systems.

A three hour session will be offered at Wallops and will cover factors that should be considered. These will include: age and service requirements, Thrift Savings Plan and Social Security differences, survivor benefits, and more. There will be time for questions and answers.

The workshop is Center funded with no cost to the Directorates. Training requests should be submitted to Code 114. Code 800 individuals should route their requests through Sherry Kleckner.

For additional information on this course, contact Laura Potler, Human Resources Development Office, x66-4853.

For additional information regarding specific retirement plan issues, contact Janet Morgan, Human Resources Operations Office, x66-4709.

Fall Protection Class

Sept. 9 through Sept. 11, 1998

8 a.m. to 4 p.m.

This course establishes an understanding of NASA and OSHA requirements for fall protection and knowledge of systems which can satisfy those requirements. This class will familiarize you with hardware, procedures, and techniques for those who use fall arrest systems.

Topics covered include:

- Preventing falls
- Aspects of fall protection equipment
- Tolerance to fall individual protective equipment

Fall hazard and risk assessment

Who should take this course:

Safety professionals and individuals supervising or working in elevated environments where fall protection is required.

For additional information or to obtain a registration form, contact Joe Drawdy, x1884.



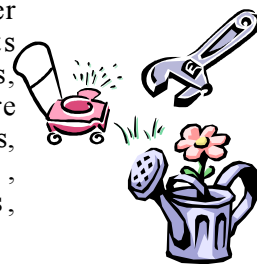
TAIL-GATE SALE

JULY 15

Starts @ 11:30 at the Flag Court parking lot across from the cafeteria

Items that will be offered:

Tools, grass cutters, garden tillers, wicker, flower arrangements and wreaths, Eastern Shore books, baskets, curtains, bedspreads, rugs, etc.



Items that employees collect:

books about the Eastern Shore, bottles from the Eastern Shore, Occupied Japan, rolling pins, Longaberger baskets, duck decoys, Beanie Babies, Pennsylvania railroad memorabilia, cookbooks.

All civil service, contract and tenant employees are invited to set up!!! **All leave or flex-time policies apply.**

For information contact Terry Ewell, x1133 or by e-mail: tewell@pop200.gsfc.nasa.gov

Major Facilities Inventory Homepage Address Change

The new Major Facilities Homepage address is: <http://facility.hq.nasa.gov/>

The old address was: <http://131.182.171.171/>

The major facilities inventory includes three major Federal Government agencies and an increasing number of private companies, with 49 different facility types and over 777 capabilities listed, supporting numerous programs from advanced aircraft to Space Station. The facilities data pages are prepared and maintained by individual installations, organizations and companies who are responsible for the content.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

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Printing

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Printing Management Office